

16. (ADDED) A method of control signal transmission for supporting a closed-loop capacity scheduling method used in a system comprising a mobile station capable of transmitting a plurality of data flows to a base station, any one of a plurality of priority levels being assigned to each of the data flows, wherein

the mobile station transmits to the base station a provisional scheduling information which is given by dividing the data flows into groups on the basis of the priority levels of each of the data flows and by producing the provisional scheduling information based on a buffer accumulation amount of the data flows of each group,

the base station determines an assigned capacity for the data flow on the basis of the provisional scheduling information,

the base station notifies to the mobile station the assigned capacity and information designating the data flow, and

the mobile station transmits the data flow on the basis of the received assigned capacity.

17. (ADDED) A method of control signal transmission as claimed in claim 16 wherein, on determining the assigned capacity, the base station carries out the steps of:

calculating a required capacity for each of the data flows from the provisional scheduling information, and

determining, in case where a total of the required capacity exceeds a usable capacity, an allowable capacity smaller than the required capacity on the basis of the priority level.

18. (ADDED) A method of control signal transmission as claimed in claim 16, wherein the assigned capacity notified from the base station to the mobile station comprises flow identification information of each of the data flows and an allowable capacity usable for the data flow.